

Army Corps of Engineers
Washington Aqueduct
(DC0000019)

Permit Issuance: November 20, 2008

Permit Expiration: November 19, 2013

June 12, 2003: Permit Compliance Schedule via FFCA

Achieve compliance with effluent limitations in the permit. One or more of the sed. basins must be completed by March 1, 2008, with full compliance at all basins NLT, Dec 30, 2009.

May 3, 2007: Modifications requested by ACOE/WA

1. Extend the final compliance deadline
2. Eliminate the March 1, 2007 compliance deadline

December 4, 2012: FFCA Completed and Terminated

September 15, 2014: ACOE/WA requests bypass at Basin 1 via Outfall 004

November 10, 2014: EPA approves ACOE/WA request for bypass at Basin 1 via Outfall 004

November 30, 2014: EPA clarifies its November 10, 2014 approval and extends its bypass concession to now include Basins 2 via Outfall 003.

November 2014: WA bypass discharge via 003A

December 2014: WA bypass discharge 003A and 004A

January 2015: inspection report indicates WA's failure to report the discharge on DMRs. I pulled dmr, there is no data for January!

February 2015: WA bypass discharge 004A

DOEE Inspection: May 13, 2015

Issue:

The barges within the Georgetown sedimentation basin #1 are equipped with suction arms to remove accumulated sediment. They are managed via a SCADA system in the residuals processing facility (RPF).

The Aqueduct has experienced technical difficulties, engineering issues, and a combination of other factors that have caused the sedimentation removal system to be ineffective. A catastrophic failure of the guidance system now requires a redesign of the control system and other technologies have been explored, but have failed or were not designed for this purpose. The facility acknowledges there is a lack of a solution to address the deficiencies in the sediment removal systems and that sediment accumulation will continue to be an issue until a solution is found.

The RPF is operating at 30-40% of design capacity and conveyance of solids to the facility and the lack of

storage capacity of dewatered solids prior to removal by truck are limiting factors that are attributable to excess sedimentation in the basins. The accumulation of sediments in the basins is a problem resulting in discharges in 2012, 2014 and 2015.

In a letter dated February 3, 2015, the Director, Water Protection Division, recognizes situations in which the ACOE may need to discharge from the basins outside the restrictions placed on the discharge in the permit to avoid damage to the Aqueduct facilities thus impairing ability to provide safe drinking water.

(Are these approvals granted when the BMPs placed in the basins for dredging, flushing, collecting, scraping have failed?)

The May 13, 2015 DOEE inspection indicates that a plan to prevent future bypasses could not be provided by the ACOE/WA, however senior representatives claimed that only in a **“catastrophic failure”** would a Georgetown Sediment Basin discharge occur. In the interim, other methods of sediment removal will be utilized (with discharge being a last option. (See Water Compliance Inspection Report, dated May 13, 2015.)

Failure to monitoring and report outfall 004 discharge analysis on January 13 and January 14.

Failure to sample quarterly, is/was doing so monthly at 002Q

Failure to sample and analyze samples for the January bypass at outfall 003 (Sed. basin #1) in December 2014, as well as December, January and February 2014 at outfall 004.

Sedimentation accumulation from these authorized bypasses remain present at the outfalls channels leading to the Potomac River.

The Aqueduct’s Best Management Plan is dated October 2010. Considering the significant issues with failing BMPs, it is important to have a BMP that is reflective of current activities and employed BMPS as they occur in real time.

Effluent violations of TSS, Copper, Aluminum, and Iron were realized as a result of the 2014 bypass occurrences.

Recommendation:

1. Meet with DOEE and the Aqueduct to discuss a path forward.
2. ACOE/WA to deliver a firm compliance work plan to EPA and DOEE that will describe how to consistently and effectively remove sediment from the Georgetown Basins eliminating any future discharge to the Potomac River, with the exception of a “catastrophic failure.”
3. Inquire into the January 2015 alleged discharge and failure to report.
3. To avoid future discharges to the Potomac, ACOE/WA needs to employ a contractor for pumping, dewatering and hauling and disposal of sediments until the BMPs or another resolve within the basin have been fully executed, operational and effective.
4. The most recent Best Management Plan is dated October 2010. ACOE/WA needs to document a current operation and maintenance (O&M) plan for the BMPs and the structures related to residuals

management, sedimentation tanks, sedimentation basins and the treatment system.

5. The NPDES permit authorizes the permittee to discharge effluent that includes leakage and/or discharge from a spring underneath the Dalecarlia Sedimentation Basins through Outfall 002Q. Such discharges shall be limited and monitored by the permittee as specified in the permit. The permit states that outfall 002Q sampling and analysis shall be conducted quarterly and by grab sample. It's alleged that the WA has been taking monthly samples and reporting DMR data, monthly.

6. Initiate a 308 information letter.

7. Create or reconvene stakeholders to manage the issues relative to management of the basins and the sedimentation discharges from the Georgetown basins to the Potomac River and the ecosystem.

8. EPA/DOEE to conduct a facility inspection/walkthrough of basins and RPF.